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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,587	03/10/2004	Lucien A. Couvillon JR.	BSEN121512	6347

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EXAMINER

SMITH, PHILIP ROBERT

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/798,587	COUVILLON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Philip R Smith	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

[01] Claim 2 is objected to because of the following informalities: "the video chip" lacks antecedent basis in claim 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

[02] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[03] Claims 1-6 & 8-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi (4,853,772).

[04] *With regard to claims 1-2 & 16:* Kikuchi discloses an imaging chip ("solid state imaging device 3," column3/ line45) located at the distal end of an endoscope ("electronic endoscope 11," column3/ line21) having a distal end and a proximal end. Kikuchi further discloses an optical fiber ("optical fibers 71 as shown in Fig. 5," 4/57-66) for transmitting signals from the imaging chip. Kikuchi further discloses an operator console ("color monitor 17," 3/31) which is coupled to a video chip ("video signal processing circuit 35," 4/16) via the optical fiber.

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- [05] *With regard to claims 3-5, 12-14, & 17-19:* Kikuchi discloses an encoding circuit ("photomodulator 72," 4/60) comprising a pulse-code modulator (column 4/ line 32) which encodes signals from the imaging chip and impresses them on the optical fiber via a light emitter ("LED 73," 4/57-66) that is a photo diode.
- [06] *With regard to claim 8-11 & 21-24:* Kikuchi discloses a receiving circuit for receiving and decoding signals from the optical fiber and an optical connector for coupling the optical fiber to the receiving circuit (composing the "photodemodulator 74," 4/57-66)
- [07] Additionally, claims 1-6 & 8-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakoshi (4,473,841).
- [08] *With regard to claims 1-2 & 16:* Murakoshi discloses an imaging chip ("charge coupled device (CCD) 6," 2/35) located at the distal end of an endoscope ("endoscope 1," 2/26) having a distal end and a proximal end. Murakoshi further discloses an optical fiber ("fiber optic cable 11," 2/41-46) for transmitting signals from the imaging chip. Murakoshi further discloses an operator console ("display 16," 2/68) which is coupled to a video chip ("amplifier 7," 2/35) via the optical fiber.
- [09] *With regard to claims 3-5, 12-14, & 17-19:* Murakoshi discloses an encoding circuit ("modulator 8," 2/35) comprising a pulse-code modulator (2/52-53) which encodes signals from the imaging chip and impresses them on the optical fiber via a light emitter ("electrical-to-optical converter 9 as typified by a light-emitting diode" 4/57-66) that is a photo diode.

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- [10] *With regard to claim 8-11 & 21-24:* Murakoshi discloses a receiving circuit for receiving and decoding signals from the optical fiber and an optical connector for coupling the optical fiber to the receiving circuit ("optical-to-electrical converter 12" and "demodulator 14")

***Claim Rejections - 35 USC § 103***

- [11] The text of those sections of Title 35, U.S. Code The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- [12] Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Lefevre, et al (5,821,530). Additionally, claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murakoshi in view of Lefevre, et al (5,821,530). Kikuchi or Mirakoshi disclose the entireties of claims 1 and 5, including optical fibers and a light emitter. Kikuchi or Mirakoshi do not disclose lensing that is coupled to the light emitter.
- [13] It is well known that lensing be used to optimize transfer of light from a source to an optical fiber. Lefevre et al., whose invention is concerned entirely with said transfer, state the following in their abstract: "[a] condensing lens may be placed

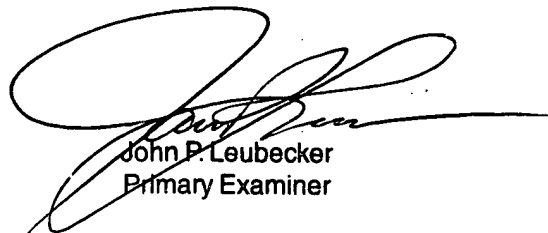
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between the emitter and the fiber optic end face to maximize emitted light that enters the fiber optic."

***Conclusion***

- [14] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Puzey (6,115,170) discloses a generic data transmission system that utilizes optical fibers.
- [15] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip R Smith whose telephone number is (571) 272 6087. The examiner can normally be reached on 10:00-6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272 4764. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
- [16] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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John P. Leubecker  
Primary Examiner